

What is claimed is:

1. A method of adding a client as a member of a hub network, comprising:
 - detecting a client connected to a server in a hub network;
 - 5 authenticating said client;
 - authorizing said client; and
 - adding said client as a member in said hub network.
2. The method of claim 1, wherein:
 - 10 said server will provide a license for content data bound to said hub network only to members of said hub network.
3. The method of claim 1, further comprising:
 - receiving an add request indicating said client.
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4. The method of claim 3, wherein:
 - said add request is received from said client.
5. The method of claim 1, further comprising:
 - 20 connecting said client to said server.
6. The method of claim 1, wherein:
 - detecting said client includes receiving a connection notification from said client.
- 25 7. The method of claim 1, wherein:
 - authenticating said client includes sending a compliance confirmation request to said client,
 - said compliance confirmation request requests information from said client to confirm that said client is a compliant device, and
 - 30 a compliant device will not decrypt locked content data without a license that is bound to a hub network of which the compliant device is a member.

8. The method of claim 1, wherein:

authenticating said client includes sending an identification request to said client,
said identification request requests information from said client identifying said

5 client.

9. The method of claim 1, wherein:

authorizing said client includes sending a local environment confirmation request
to said client.

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10. The method of claim 9, wherein:

said local environment confirmation request requests information from said client
indicating whether said client in a local environment of said server, and
said local environment is a limited area defined relative to said server.

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11. The method of claim 9, wherein:

authorizing said client includes measuring the time between sending said local
environment confirmation request and receiving a reply from said client in response to
said local environment confirmation request.

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12. The method of claim 9, wherein:

sending said local environment confirmation request includes pinging said client.

13. The method of claim 1, further comprising:

25 checking a revocation list to determine whether said client is included in said
revocation list;

wherein said revocation list is stored on said server.

14. The method of claim 1, further comprising:

30 confirming a device count of members in said hub network by comparing said
device count with a member device limit;

wherein said client will not be added as a member in said hub network if said device count is greater than or equal to said member device limit.

15. The method of claim 14, further comprising:

5 increasing said device count after adding said client as a member.

16. The method of claim 1, further comprising:

 comparing a device count of members in said hub network with a member device limit; and

10 confirming said device count by contacting an external device registration server.

17. The method of claim 16, further comprising:

 sending a device add request to said device registration server; and

 receiving a device add permission from said device registration server;

15 wherein said device add request includes said device count.

18. A method of adding a client as a member of a hub network, comprising:

 sending a connection notification from a client to a server in a hub network;

 sending identification information from said client to said server; and

20 receiving an add confirmation at said client from said server;

 wherein said add confirmation indicates said client has been added as a member in said hub network.

19. The method of claim 18, wherein:

25 said server will provide a license for content data bound to said hub network only to members of said hub network.

20. The method of claim 18, further comprising:

 sending an add request indicating said client from said client to said server.

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21. The method of claim 18, further comprising:

connecting said client to said server.

22. The method of claim 18, further comprising:

5 sending compliance information from said client to said server;
 wherein said compliance information indicates that said client is a compliant
device, and
 a compliant device will not decrypt locked content data without a license that is
bound to a hub network of which the compliant device is a member.

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23. The method of claim 18, further comprising:

 sending authorization information from said client to said server;
 wherein said authorization information indicates said client is in a local
environment of said server, and

15 said local environment is a limited area defined relative to said server.

24. The method of claim 23, wherein:

 said authorization information is a reply to a ping request from said server.

20 25. The method of claim 18, further comprising:

 checking a revocation list to determine whether said client is included in said
revocation list;

 wherein said revocation list is stored on said client.

25 26. A method of adding a client as a member of a hub network, comprising:

 authenticating a client through an intermediary device connected to a server in a
hub network;

 authorizing said client through said intermediary device; and

 adding said client as a member in said hub network through said intermediary

30 device;

 wherein said client is not connected to said server.

27. The method of claim 26, wherein:

said server will provide a license for content data bound to said hub network only to members of said hub network.

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28. The method of claim 26, wherein:

said client is not in a local environment of said server, and
said local environment is a limited area defined relative to said server.

10 29. A method of adding a client as a member of a hub network, comprising:

sending a connection notification from a client to a server in a hub network through an intermediary device connected to said server;
sending identification information from said client to said server through said intermediary device; and

15 receiving an add confirmation at said client from said server through said intermediary device;

wherein said add confirmation indicates said client has been added as a member in said hub network.

20 30. The method of claim 29, wherein:

said server will provide a license for content data bound to said hub network only to members of said hub network.

31. The method of claim 29, wherein:

25 said client is not in a local environment of said server, and
said local environment is a limited area defined relative to said server.

32. A method of removing a client as a member of a hub network, comprising:

triggering removal of a client as a member of a hub network;
30 disabling all licenses stored by said client corresponding to content data bound to said hub network; and

removing said client as a member in said hub network so that said client is no longer a member of said hub network.

33. The method of claim 32, wherein:

5 said server will provide a license for content data bound to said hub network only to members of said hub network.

34. The method of claim 32, wherein:

10 triggering removal of said client includes receiving a removal request from said client.

35. The method of claim 32, wherein:

15 triggering removal of said client includes receiving a revocation notification that said client is no longer to be authorized to be a member of a hub network.

36. The method of claim 35, further comprising:

 adding said client to a revocation list stored on said server.

37. The method of claim 36, further comprising:

20 sending said revocation list including said client to a second client in said hub network.

38. The method of claim 36, further comprising:

25 sending said revocation list including said client to a second server in a second hub network.

39. The method of claim 35, further comprising:

 adding said client to a revocation list corresponding to a root license stored on said server;

30 wherein said root license corresponds to locked content data stored on said server and is bound to said hub network.

40. The method of claim 32, wherein:

disabling said licenses includes sending a disable request to said client indicating one or more license to be disabled.

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41. The method of claim 32, wherein:

disabling said licenses includes updating respective root licenses corresponding to said disabled licenses.

10 42. The method of claim 41, further comprising:

declining to renew said disabled licenses for said client.

43. The method of claim 32, wherein:

15 removing said client as a member includes updating respective root licenses corresponding to said disabled licenses.

44. The method of claim 32, wherein:

said server does not remove said client as a member until all of said disabled licenses have expired.

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45. The method of claim 32, further comprising:

decreasing a device count after removing said client as a member;
wherein said device count indicates the number of members in said hub network.

25 46. A method of reconnecting a client to a hub network, comprising:

detecting a client connected to a hub network;
authenticating said client as a member of said hub network; and
authorizing said client.

30 47. The method of claim 46, further comprising:

refreshing one or more licenses stored on said client

48. The method of claim 46, wherein:

authenticating said client includes sending an identification request to said client,
said identification request requests information from said client identifying said
5 client.

49. The method of claim 46, wherein:

authorizing said client includes sending a local environment confirmation request
to said client, and
10 said local environment is a limited area defined relative to said server.

50. The method of claim 49, wherein:

authorizing said client includes measuring the time between sending said local
environment confirmation request and receiving a reply from said client in response to
15 said local environment confirmation request.

51. A method of disconnecting a client from a hub network, comprising:

disconnecting a client from a hub network;
setting an expiration time for a license stored on said client; and
20 comparing said expiration time to a clock of said client;
wherein said license corresponds to locked content data stored on said client and
is bound to said hub network.

52. The method of claim 51, wherein:

25 said license indicates an expiration period, and
said expiration period indicates an amount of time for which said sub-copy license
is valid.

53. The method of claim 51, further comprising:

30 setting said expiration time according to said expiration period including resetting
said expiration time if said expiration time was previously set to a different value.

54. The method of claim 51, wherein:

disconnecting said client includes said client leaving a local environment of a server of said hub network, and

5 said local environment is a limited area defined relative to said server.

55. The method of claim 51, wherein:

said clock is a secure client clock.

10 56. The method of claim 51, further comprising:

when comparing said expiration time to said clock indicates that said expiration time has been reached, disabling said license;

wherein said client will not decrypt said locked content data when said license is disabled.

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57. The method of claim 51, further comprising:

attempting to request a new license from a server in said hub network.

58. The method of claim 51, further comprising:

20 attempting to reconnect said client to said hub network.